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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/560,224	04/28/2000	T. Allan Hamilton	ZIL-300-1P-1C	3693
47713	7590	02/23/2006	EXAMINER	
SILICON EDGE LAW GROUP LLP 6601 KOLL CENTER PARKWAY, SUITE 245 PLEASANTON, CA 94566			TRAN, DZUNG D	
			ART UNIT	PAPER NUMBER
			2638	

DATE MAILED: 02/23/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/560,224

Applicant(s)

HAMILTON ET AL.

Examiner

Dzung D. Tran

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 15 November 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 16,17 and 19-38 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 16,17 and 19-38 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### *Specification*

#### ***Claim Rejections - 35 USC § 102***

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 16, 17 and 19-38 are rejected under 35 U.S.C. 102(e) as being anticipated by Schairer U.S. Patent no. 6,301,035.

Regarding claims 16 and 30, Schairer discloses in Figure 1, a transceiver system for sending and receiving infrared signals comprising:

a circuit structure 1 defined by a front side and a back side (see Figure 2):

at least one infrared emitting device 10 (col. 2, line 39) located on said front side:

at least one infrared detecting device 8 (col. 2, line 40) also located on said front side:

a transceiver circuit device 6 (col. 2, lines 51-52) located on said front side;

said infrared detecting device 8 further comprising a front side and a back side, said infrared detecting device 8 back side aligned to face said front side of said circuit structure 5; said infrared emitting device 10 further comprising a back side, said infrared

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emitting device 10 back side aligned to face said infrared detecting device front side 8, whereby said infrared emitting device 10 and said infrared detection device 8 form an integrated infrared emitting and infrared detection device (see Fig. 1);

said integrated infrared emitting/infrared detection device is located on said front side of said transceiver circuit device 6 to form a transceiver/infrared emitting/infrared detection device stack S (col. 2, lines 50-54):

a primary lens element 2A (col. 3, line 7) providing an optical path, said primary lens element 2A and said transceiver/infrared emitting/infrared detection device stack S cooperatively located such that said transceiver/infrared emitting/infrared detection device stack is aligned with said optical path and a secondary lens unit 2A' (col. 4, lines 33-35) separated by a distance from primary lens element (see Figure 2) and aligned along said single optical path, the primary lens 2A located between the secondary lens 2A' and the at least one infrared emitting device 10, the secondary lens unit 2A' causing a ray to be refracted such that the angle of the ray with respect to the secondary lens is modified by passing through the lens (see Fig. 2).

Regarding claim 17, Schairer further discloses in Figure 1, a housing (e.g., housing 3 and lens 2) wherein the lens 3 encapsulating said transceiver/infrared emitting/infrared detection device stack.

Regarding claim 19, as far as Examiner understood, Schairer discloses a process for sending and receiving infrared signals from an infrared transceiver assembly comprising a circuit structure 5 (col. 2, line 33) defining a first side (e.g., first

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side includes and a second side, a transceiver circuit device, at least one infrared emitting device 10 and at least one infrared detection device 8, the steps comprising:

transmitting infrared signals by transmitting signals to said transceiver circuit device 6 (col. 2, lines 51-52), said transceiver circuit device 6 being located on said first side,

passing said signals through said transceiver circuit device 6 and to said infrared emitting device 10;

emitting infrared signals from said infrared emitting device 8;

receiving infrared signals by receiving infrared signals with said infrared detection device 8, said infrared emitting device being stacked upon said infrared detection device to form an integrated infrared emitting/detection device stack;

passing said received signals to said transceiver circuit device by bond wires 12 (col. 2, lines 45-49);

passing said received signals away from said transceiver circuit device by terminal pin 4 (col. 2, lines 32-33).

Regarding claim 21, Schairer discloses in figure 3, an optical communication device for transmitting and receiving optical communication signals, comprising:

an optical receiving device 8 that receives a first optical signal at a first surface;

an optical transmission device 10 that emits a second optical signal from a second surface,

the first and second surfaces facing in a common direction (see Figure 3);

a support element, the optical receiving device and the optical transmission device mounted to a first side of the support element (e.g., Fig. 1 shown transmitter 10 and receiver 8 is in the housing 17; i.e., equivalent to first side).

a transceiver device 6 in communication with both the optical transmission device 10 and the optical receiving device 8, the transceiver device 6 mounted on a second side of the support element (e.g., Fig. 1 shown transceiver device 6 is in the housing 3 (i.e., equivalent to second side).

Regarding claims 20 and 22, Schairer discloses the circuit structure and the support element is a PCB (see Figures 1 and 2)

Regarding claim 23, Schairer discloses in Figure 3, the optical receiving device and the optical transmission device are both directly mounted to the first side of the support element and are spaced apart along the first side of the support element

Regarding claim 24, Schairer discloses in Figure 1, the optical transmission device 10 is mounted on the optical receiving device 8 and the optical receiving device is mounted on the first side of the support element.

Regarding claim 26, Schairer discloses in Figure 1, the transceiver device has a circuit 6 on a third surface, the third surface facing away from the second side of the support element 5.

Regarding claim 27, Schairer discloses in Figure 3, a transmission lens 2' that passes a ray from the optical transmission device 10.

Regarding claim 28, Schairer discloses in Figure 3, a receiving lens 2'' that passes a ray to the optical receiving device 8.

Regarding claim 29, Schairer discloses in Figure 1, a single lens 2A that passes a first ray from the optical transmission device 10 and passes a second ray to the optical receiving device 8.

Regarding claim 31, Schairer discloses primary lens element 2A and said transceiver/infrared emitting/infrared detection device stack are oriented such that said optical path from said infrared emitting device is reflected by a mirror 13 and then passes through said primary lens element 2A (col. 3, lines 7-20).

Regarding claims 32-36, Schairer shown in Fig. 2, primary lens element 2A and secondary element 2A' having different refractive angle (e.g., equivalent to different refractive power). Furthermore, whether the primary lens element has no refractive power or the primary lens element has a different refractive power is merely an engineering design choices.

Regarding claims 37 and 38, Schairer further discloses in Figure 1, a housing (e.g., housing 3 and lens 2) encapsulating said transceiver/infrared emitting/infrared detection device stack, said housing comprising a wall at least partially defined by said primary lens element 2A.

3. Applicant's arguments with respect to claims 16, 17 and 19-38 have been considered but are moot in view of the new ground(s) of rejection.

***Conclusion***

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dzung D Tran whose telephone number is (571) 272-3025. The examiner can normally be reached on 9:00 AM - 7:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kenneth Vanderpuye, can be reached on (571) 272-3078. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Dzung Tran  
01/26/2006